ABSTRCT FOR QUALITY CONTROL REPORTS

NAME OF WORK:	Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division

Test details

SL NO	Item Executed	Name of tests	Quantity Executed	Unit	As per Frequency	Requried No of Tests	Actual No of Tests
1	CC	Cement Sand, Aggregates	56.01		One test per slot	1	1
2	Steel	Tensile strength	5.91		One test per slot	1	1
3	Slab 100mm	Compressive Strength	256.68	Sqm	One test per slot	1	1
4	Kerb	Compressive Strength	691	No's	One test per slot	1	1
5	Concrete Cubes M-20	Compressive Strength	99.99	Cum	1 to 5 - 1set 6 to 15 - 2set 16 to 30 -3set 31 to 50 - 4set 51 and above 4 plus one additional sample for each additional 50m3 or part thereof	5	5
6	GSB	GRADATION	777.74	Cum	1 test /200 cum	3	3
		FIELD DENSITY			3 test /1000 sqm	3	3
6	WMM	GRADATION	1192.54	Cum	1 test /200 cum	6	6
		FIELD DENSITY			3 test /1000 sqm	4	4

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 078

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬ ಬ ಪಾ.ಪ. ಬೆಂಗಳೂರು-106

Job No.: VSR/BBMP/KRIDL/W.No.03/2019-20 Date: 26.11.2020

TEST REPORT

CLIENT	:	Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
AGENCY	:	M/s. Technical Manager (West), KRIDL, Bengaluru
NAME OF THE WORK	:	Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division.
SAMPLE ID	:	Cement (ACC – OPC 53 Grade)
DATE OF MANUFACTURE	:	November - 2020
DATE OF TESTING	:	24.11.2020 to 26.11.2020
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part -5)	145Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	45 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	30.00 %	-

Note:

⇒ The report shall not be reproduced, except in full, without the written approval of the laboratory.
⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.
⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

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VSR CIVIL INFRA PVT. LTD.
Engineering project Consultants

Job No.: CSC/BBMP/KRIDL/W.No.26/2019-20 Date 26.11.2020

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Executive Engineer,** Yelahanka Division, BBMP, Bengaluru.
Agency : **M/s. Technical Manager (West), KRIDL, Bengaluru**
Name of Work : Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division.

Date of Testing 26.11.2020

Material : 40mm Aggregates

Total wt. of aggregates in gms = **15000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	385	2.57	2.57	97.43	95-100
20	5215	34.77	37.33	62.67	30-70
10	4854	32.36	69.69	30.31	10-35
4.75	4121	27.47	97.17	2.83	0-5

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ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
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ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

VSR CIVIL INFRA PVT. LTD.
Engineering project Consultants

Job No.: VSR/BBMP/KRIDL/W.No.03/2019-20 Date: 26.11.2020

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Executive Engineer,** Yelahanka Division, BBMP, Bengaluru.
Agency : **M/s. Technical Manager (West), KRIDL, Bengaluru**
Name of Work : Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division.

Date of Testing 26.11.2020
Material : 20mm Aggregates

Total wt. of aggregates in gms = **5000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
40	0	0	0	100	100
20	135	2.7	2.7	97.3	95-100
10	2653	53.1	55.8	44.2	25-55
4.75	2054	41.1	96.8	3.2	0-10

Note:
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VSR CIVIL INFRA PVT. LTD. BANGALORE 560040

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
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ಬ ಬ ಪಾ.ಕ. ಬೆಂಗಳೂರು-106

VSR CIVIL INFRA PVT. LTD.
Engineering project Consultants

Job No.: VSR/BBMP/KRIDL/W.No.03/2019-20

Date: 10.12.2020

TEST REPORT ON CONCRETE CUBES

Client : **Executive Engineer,** Yelahanka Division, BBMP, Bengaluru.

Agency : **M/s. Technical Manager (West),** KRIDL, Bengaluru

Name of the work : **Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division**

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	03.12.2020	10.12.2020	8.125	355.5	15.80
2	03.12.2020	10.12.2020	8.187	361.5	16.07
3	03.12.2020	10.12.2020	8.196	358.7	15.94

Note:

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VSR CIVIL INFRA PVT. LTD. BANGALORE 560 040

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VSR CIVIL INFRA PVT. LTD.
Engineering project Consultants

Job No.: VSR/BBMP/KRIDL/W.No.03/2019-20 Date: 31.12.2020

TEST REPORT ON CONCRETE CUBES

Client : **Executive Engineer,** Yelahanka Division, BBMP, Bengaluru.

Agency : **M/s. Technical Manager (West),** KRIDL, Bengaluru

Name of the work : **Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division**

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	03.12.2020	31.12.2020	8.215	499.6	22.20
2	03.12.2020	31.12.2020	8.269	502.3	22.32
3	03.12.2020	31.12.2020	8.274	513.7	22.83

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VSR CIVIL INFRA PVT. LTD. BANGALORE 560 016

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VSR CIVIL INFRA PVT. LTD.
Engineering project Consultants

Job No.: VSR/BBMP/KRIDL/W.No.03/2019-20 Date: 10.12.2020

TEST REPORT ON CONCRETE CUBES

Client : **Executive Engineer,** Yelahanka Division, BBMP, Bengaluru.

Agency : **M/s. Technical Manager (West),** KRIDL, Bengaluru

Name of the work : **Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division**

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	03.12.2020	10.12.2020	8.121	346.3	15.39
2	03.12.2020	10.12.2020	8.164	352.1	15.65
3	03.12.2020	10.12.2020	8.193	359.6	15.98

Note:

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VSR CIVIL INFRA PVT. LTD.
Engineering project Consultants

Job No.: VSR/BBMP/KRIDL/W.No.03/2019-20 Date: 11.12.2020

TEST REPORT ON CONCRETE CUBES

Client : **Executive Engineer,** Yelahanka Division, BBMP, Bengaluru.

Agency : **M/s. Technical Manager (West),** KRIDL, Bengaluru

Name of the work : **Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division**

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	04.12.2020	11.12.2020	8.121	346.2	15.39
2	04.12.2020	11.12.2020	8.145	351.8	15.64
3	04.12.2020	11.12.2020	8.163	356.2	15.83

Note:

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VSR CIVIL INFRA PVT. LTD. BANGALORE 560 [illegible]

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VSR CIVIL INFRA PVT. LTD.
Engineering project Consultants

Job No.: VSR/BBMP/KRIDL/W.No.03/2019-20 Date: 11.12.2020

TEST REPORT ON CONCRETE CUBES

Client : **Executive Engineer,** Yelahanka Division, BBMP, Bengaluru.

Agency : **M/s. Technical Manager (West),** KRIDL, Bengaluru

Name of the work : **Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division**

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	04.12.2020	11.12.2020	8.154	349.6	15.54
2	04.12.2020	11.12.2020	8.163	353.6	15.72
3	04.12.2020	11.12.2020	8.166	361.7	16.08

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VSR CIVIL INFRA PVT. LTD. BANGALORE 560 [illegible]

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ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-೧೯

+91 98452 30975 | vsrcivilinfra@gmail.com #522/B , 6th Main Road, Hanumanthanagar, Bengaluru - 19

Job No.: VSR/BBMP/KRIDL/W.No.03/2019-20

Date: 30.12.2020

PRECAST SLAB 100mm Thick(CORE) TEST REPORT

Client	:	Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Contractor	:	M/s. Technical Manager (West), KRIDL, Bengaluru
Name of Work	:	Asphalting to roads at Ambhabhavani laydut and surrounding area in ward no: 03 Yelahanka satellite Town Sub division
No.of Sample Tested	:	03
Date of Testing	:	30.12.2020
Techinical Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
Grade of Concrete	:	M_{20}

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	74.00	0.336	2312.48	1.48	0.960	34.50	17.57	18.98	18.22	22.77
2	50.00	79.00	0.365	2353.08	1.58	0.960	36.20	18.44	19.91	19.11	23.89
3	50.00	83.00	0.389	2386.94	1.66	0.960	35.80	18.23	19.69	18.90	23.63

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VSR CIVIL INFRA PVT. LTD. BANGALORE 560 019

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VSR CIVIL INFRA PVT. LTD.
Engineering project Consultants

Job No.: VSR/BBMP/KRIDL/W.No.03/2019-20

Date: 29.12.2020

KERB STONE (CORE) TEST REPORT

Client	:	Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Agency	:	M/s. Technical Manager (West), KRIDL, Bengaluru
Name of Work	:	Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division
No.of Sample Tested	:	03
Date of Testing	:	29.12.2020
Techinical Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
Grade of Concrete	:	M_{15}

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	79.00	0.361	2327.29	1.58	0.960	25.64	13.06	14.10	13.54	16.92
2	50.00	83.00	0.384	2356.26	1.66	0.960	26.84	13.67	14.76	14.17	17.72
3	50.00	88.00	0.412	2384.43	1.76	0.960	27.63	14.07	15.20	14.59	18.24

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VSR CIVIL INFRA PVT. LTD. BANGALORE 560 009.

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Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	: M/s. Technical Manager (West), KRIDL, Bengaluru

GSB Graded-V

Purpose	GSB	Date of Sampling	04.01.2021
Source	Chikkaballapura	Sampled by	PMC
Type of Mix	GSB	Date of Testing	04.01.2021
Location	At Stackyard	Tested by	PMC
		Weight of sample(gm) :	11874

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
75	0	0	0.00	100.00	100
53	805	805	6.79	93.21	80-100
26.5	925	1730	14.57	85.43	55-90
9.5	3775	5505	46.36	53.64	35-65
4.75	2305	7810	65.77	34.23	25-50
2.36	2205	10015	84.34	15.66	10--20
0.85	1190	11205	94.37	5.63	2--10
0.425	330	11535	97.15	2.85	0-5

Remarks : Test result is confirmed as per MoRTH specification

Consultants representative | Contractor representative | Client Representative

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
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Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	: M/s. Technical Manager (West), KRIDL, Bengaluru

GSB Graded-V

Purpose	GSB	**Date of Sampling**	05.01.2021
Source	Chikkaballapura	**Sampled by**	PMC
Type of Mix	GSB	**Date of Testing**	05.01.2021
Location	at site	**Tested by**	PMC
		Weight of sample(gm) :	**14521**

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
75	0	0	0.00	100.00	100
53	1840	1840	12.70	87.30	80-100
26.5	2145	3985	27.44	72.56	55-90
9.5	2890	6875	47.35	52.65	35-65
4.75	3485	10360	71.34	28.66	25-50
2.36	2095	12455	85.77	14.23	10--20
0.85	1115	13570	93.45	6.55	2--10
0.425	350	13920	95.86	4.14	0-5

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 043

Consultants representative | Contractor representative | Client Representative

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Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	: M/s. Technical Manager (West), KRIDL, Bengaluru

GSB Graded-V

Purpose	GSB	Date of Sampling	06.01.2021
Source	Chikkaballapura	Sampled by	PMC
Type of Mix	GSB	Date of Testing	06.01.2021
Location	at site	Tested by	PMC
		Weight of sample(gm) :	13526

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
75	0	0	0.00	100.00	100
53	1440	1440	10.68	89.32	80-100
26.5	2280	3720	27.50	72.50	55-90
9.5	2280	6000	44.36	55.64	35-65
4.75	3245	9245	68.35	31.65	25-50
2.36	2580	11825	87.42	12.58	10--20
0.85	845	12670	93.67	6.33	2--10
0.425	415	13085	96.74	3.26	0-5

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 013

Consultants representative

Contractor representative

Client Representative

Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.		
Consultant	: M/s VSR Civil Infra Pvt. Ltd.		
Contractor:	: M/s. Technical Manager (West), KRIDL, Bengaluru		

DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)

TEST METHOD : IS : 2720 (PART XXVIII)

Location / Chainage	: at site	Date of Sampling	08.01.2021
Type of Material	: GSB	Date of Testing	08.01.2021
Source of Material	: Chikkaballapura	Bulk Density of sand(ys)	1.37
Layer Type & No	: 1A	Wt. of Sand in cone, W3	850
LAB M.D.D. Yd	2.28	gm/cm3 @ O.M.C.	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_w	3341	3125	3365			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13209	13340	13196			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	1941	1810	1954			
5	Volume of Hole V=W4/Ys cc	1416.86	1321.18	1426.12			
6	Bulk Density of material Yb = Ww / V gm/cc	2.358	2.365	2.360			
7	Water content, w(as per QC-2)	1.052	1.053	1.055			
8	Dry density, yd = [(100 yb) / (100+ w)] gm/cm3	2.241	2.246	2.238			
9	compaction achieved =[yd / yd(lab)] x 100%	98.31	98.52	98.14			

Remarks : Test Result is Confirmed as per MORTH Specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 019

Consultant's Representative | Contractor's Representative | Client Representative

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-106

Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division			
Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.		
Consultant	: M/s VSR Civil Infra Pvt. Ltd.		
Contractor:	: M/s. Technical Manager (West), KRIDL, Bengaluru		
DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)			
TEST METHOD : IS : 2720 (PART XXVIII)			
Location / Chainage	: at site	**Date of Sampling**	08.01.2021
Type of Material	: GSB	**Date of Testing**	08.01.2021
Source of Material	: Chikkaballapura	**Bulk Density of sand(ys)**	1.37
Layer Type & No	: 1A	**Wt. of Sand in cone, W3**	850
LAB M.D.D. Yd	2.28	**gm/cm3 @ O.M.C.**	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_w	3154	3265	3052			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13312	13255	13377			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	1838	1895	1773			
5	Volume of Hole V=W4/Ys cc	1341.65	1382.91	1293.82			
6	Bulk Density of material Yb = Ww / V gm/cc	2.351	2.361	2.359			
7	Water content, w(as per QC-2)	1.051	1.053	1.054			
8	Dry density, yd = [(100 yb) / (100+ w)] gm/cm3	2.238	2.242	2.238			
9	compaction achieved =[yd / yd(lab)] x 100%	98.15	98.33	98.16			

Remarks : Test Result is Confirmed as per MORTH Specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 040

Consultants representative | Contractor representative | Client Representative

Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor:	: M/s. Technical Manager (West), KRIDL, Bengaluru

DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)

TEST METHOD : IS : 2720 (PART XXVIII)

Location / Chainage	: at site	**Date of Sampling**	09.01.2021
Type of Material	: GSB	**Date of Testing**	09.01.2021
Source of Material	: Chikkaballapura	**Bulk Density of sand(ys)**	1.37
Layer Type & No	: 1A	**Wt. of Sand in cone, W3**	850
LAB M.D.D. Yd	2.28	**gm/cm3 @ O.M.C.**	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_w	3452	3168	3395			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13142	13305	13189			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	2008	1845	1961			
5	Volume of Hole V=W4/Ys cc	1465.53	1346.51	1431.28			
6	Bulk Density of material Yb = Ww / V gm/cc	2.355	2.353	2.372			
7	Water content, w(as per QC-2)	1.053	1.051	1.055			
8	Dry density, yd = [(100 yb) / (100+ w)] gm/cm3	2.237	2.240	2.249			
9	compaction achieved =[yd / yd(lab)] x 100%	98.11	98.23	98.63			

Remarks : Test Result is Confirmed as per MORTH Specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 043

Consultants representative | Contractor representative | Client Representative

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ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ.
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	M/s. Technical Manager (West), KRIDL, Bengaluru

GRADATION FOR WET MIX MECADAM

Purpose	WMM	**Date of Sampling**	11.01.2021
Source	Chikkaballapura	**Sampled by**	PMC
Type of Mix	WMM	**Date of Testing**	11.01.2021
Location	At Stackyard	**Tested by**	PMC
		Weight of sample(gm) :	**13125**

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
53	0	0	0.00	100.00	100
45	220	220	1.68	98.32	95--100
22.4	3175	3395	25.87	74.13	60--80
11.2	2335	5730	43.66	56.34	40--60
4.75	2770	8500	64.76	35.24	25--40
2.36	1550	10050	76.57	23.43	15--30
0.6	1090	11140	84.88	15.12	8--22
0.075	1045	12185	92.84	7.16	0--8

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 040

Consultants representative | Contractor representative | Client Representative

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ.
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-106

Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	M/s. Technical Manager (West), KRIDL, Bengaluru

GRADATION FOR WET MIX MECADAM

Purpose	WMM	Date of Sampling	11.01.2021
Source	Chikkaballapura	Sampled by	PMC
Type of Mix	WMM	Date of Testing	11.01.2021
Location	at site	Tested by	PMC
		Weight of sample(gm) :	11560

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
53	0	0	0.00	100.00	100
45	305	305	2.68	97.32	95--100
22.4	2425	2730	23.62	76.38	60--80
11.2	2800	5530	47.84	52.16	40--60
4.75	1840	7370	63.75	36.25	25--40
2.36	1725	9095	78.68	21.32	15--30
0.6	555	9650	83.48	16.52	8--22
0.075	1305	10955	94.77	5.23	0--8

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 049

Consultants Representative | Contractor representative | Client Representative

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-೧೯

Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	M/s. Technical Manager (West), KRIDL, Bengaluru

GRADATION FOR WET MIX MECADAM

Purpose	WMM	Date of Sampling	12.01.2021
Source	Chikkaballapura	Sampled by	PMC
Type of Mix	WMM	Date of Testing	12.01.2021
Location	at site	Tested by	PMC
		Weight of sample(gm) :	12585

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
53	0	0	0.00	100.00	100
45	210	210	1.68	98.32	95--100
22.4	4375	4585	36.43	63.57	60--80
11.2	1915	6500	51.65	48.35	40--60
4.75	1990	8490	67.46	32.54	25--40
2.36	1620	10110	80.33	19.67	15--30
0.6	545	10655	84.66	15.34	8--22
0.075	1485	12140	96.46	3.54	0--8

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE

Consultants representative | Contractor representative | Client Representative

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ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-106

Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division

Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.
Consultant	: M/s VSR Civil Infra Pvt. Ltd.
Contractor	M/s. Technical Manager (West), KRIDL, Bengaluru

GRADATION FOR WET MIX MECADAM

Purpose	WMM	**Date of Sampling**	13.01.2021
Source	Chikkaballapura	**Sampled by**	PMC
Type of Mix	WMM	**Date of Testing**	13.01.2021
Location	at site	**Tested by**	PMC
		Weight of sample(gm) :	13254

Sieve Size (mm)	Weight Retained (gm)	Cum. Weight Retained (gm)	Cummulative % Retained	Cummulative % passing	Specification Limits As per MORTH
53	0	0	0.00	100.00	100
45	355	355	2.68	97.32	95--100
22.4	2915	3270	24.67	75.33	60--80
11.2	2875	6145	46.36	53.64	40--60
4.75	2440	8585	64.77	35.23	25--40
2.36	1535	10120	76.35	23.65	15--30
0.6	1115	11235	84.77	15.23	8--22
0.075	1325	12560	94.76	5.24	0--8

Remarks : Test result is confirmed as per MoRTH specification

VSR CIVIL INFRA PVT. LTD. BANGALORE

Consultant representative | Contractor representative | Client Representative

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
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Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division			
Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.		
Consultant	: M/s VSR Civil Infra Pvt. Ltd		
Contractor:	: M/s. Technical Manager (West), KRIDL, Bengaluru		
DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)			
TEST METHOD : IS : 2720 (PART XXVIII)			
Location / Chainage	: at site	Date of Sampling	18.01.2021
Type of Material	: WMM	Date of Testing	18.01.2021
Source of Material	: Chikkaballapura	Bulk Density of sand(ys)	1.37
Layer Type & No	: 1A	Wt. of Sand in cone, W3	850
LAB M.D.D. Yd	2.28	gm/cm3 @ O.M.C.	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_w	3152	3265	3347			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13317	13261	13203			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	1833	1889	1947			
5	Volume of Hole V=W4/Ys cc	1338.03	1379.06	1421.48			
6	Bulk Density of material Yb = Ww / V gm/cc	2.356	2.368	2.355			
7	Water content, w(as per QC-2)	1.053	1.054	1.051			
8	Dry density, yd = [(100 yb) / (100+ w)] gm/cm3	2.237	2.246	2.240			
9	compaction achieved =[yd / yd(lab)] x 100%	98.32	98.45	98.61			

Remarks : Test Result is Confirmed as per MORTH Specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 040

Consultant's representative

Contractor representative

Client Representative

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-೧೯

Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division			
Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.		
Consultant	: M/s VSR Civil Infra Pvt. Ltd		
Contractor:	: M/s. Technical Manager (West), KRIDL, Bengaluru		
DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)			
TEST METHOD : IS : 2720 (PART XXVIII)			
Location / Chainage	: at site	Date of Sampling	18.01.2021
Type of Material	: WMM	Date of Testing	18.01.2021
Source of Material	: Chikkaballapura	Bulk Density of sand(ys)	1.37
Layer Type & No	: 1A	Wt. of Sand in cone, W3	850
LAB M.D.D. Yd	2.28	gm/cm3 @ O.M.C.	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_w	3156	3452	3352			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13315	13153	13206			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	1835	1997	1944			
5	Volume of Hole V=W4/Ys cc	1339.12	1457.61	1418.81			
6	Bulk Density of material Yb = Ww / V gm/cc	2.357	2.368	2.363			
7	Water content, w(as per QC-2)	1.052	1.054	1.051			
8	Dry density, yd = [(100 yb) / (100+ w)] gm/cm3	2.240	2.247	2.249			
9	compaction achieved =[yd / yd(lab)] x 100%	98.15	98.24	98.74			

Remarks : Test Result is Confirmed as per MORTH Specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 043

Consultants representative

Contractor representative

Client Representative

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರ
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-106

Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division			
Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.		
Consultant	: M/s VSR Civil Infra Pvt. Ltd		
Contractor:	: M/s. Technical Manager (West), KRIDL, Bengaluru		
DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)			
TEST METHOD : IS : 2720 (PART XXVIII)			
Location / Chainage	: at site	Date of Sampling	19.01.2021
Type of Material	: WMM	Date of Testing	19.01.2021
Source of Material	: Chikkaballapura	Bulk Density of sand(ys)	1.37
Layer Type & No	: 1A	Wt. of Sand in cone, W3	850
LAB M.D.D. Yd	2.28	gm/cm3 @ O.M.C.	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_w	3365	3485	3169			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13197	13135	13308			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	1953	2015	1842			
5	Volume of Hole V=W4/Ys cc	1425.88	1470.58	1344.43			
6	Bulk Density of material Yb = Ww / V gm/cc	2.360	2.370	2.357			
7	Water content, w(as per QC-2)	1.054	1.055	1.052			
8	Dry density, yd = [(100 yb) / (100+ w)] gm/cm3	2.240	2.246	2.241			
9	compaction achieved =[yd / yd(lab)] x 100%	98.63	98.15	98.52			

Remarks : Test Result is Confirmed as per MORTH Specification

VSR CIVIL INFRA PVT LTD BANGALORE 560 043

Consultants representative

Contractor representative

Client Representative

Name Of The Work: Asphalting to roads at Ambhabhavani layout and surrounding area in ward no: 03 Yelahanka satellite Town Sub division			
Client	: Executive Engineer, Yelahanka Division, BBMP, Bengaluru.		
Consultant	: M/s VSR Civil Infra Pvt. Ltd		
Contractor:	: M/s. Technical Manager (West), KRIDL, Bengaluru		
DRY DENSITY OF SOIL/ GSB/WMM (SAND REPLACEMENT METHOD)			
TEST METHOD : IS : 2720 (PART XXVIII)			
Location / Chainage	: at site	Date of Sampling	19.01.2021
Type of Material	: WMM	Date of Testing	19.01.2021
Source of Material	: Chikkaballapura	Bulk Density of sand(ys)	1.37
Layer Type & No	: 1A	Wt. of Sand in cone, W3	850
LAB M.D.D. Yd	2.28	gm/cm3 @ O.M.C.	5.93

OBSERVATIONS

Sl No	Description/Location	Trial no 01	Trial no 02	Trial no 03	Trial no 04	Trial no 05	Trial no 06
1	Wt. of wet material from hole. W_m	3214	3395	3412			
2	Wt of sand + cylinder before pouring, W_1	16000	16000	16000			
3	Wt of sand + cylinder after pouring, W2	13280	13180	13179			
4	Wt. of sand in hole, W4 = (W1 - W2 - W3)	1870	1970	1971			
5	Volume of Hole V=W4/Ys cc	1364.76	1437.89	1438.48			
6	Bulk Density of material Yb = Ww / V gm/cc	2.355	2.361	2.372			
7	Water content, w(as per QC-2)	1.052	1.052	1.054			
8	Dry density, yd = [(100 yb) / (100+ w)] gm/cm3	2.240	2.244	2.251			
9	compaction achieved =[yd / yd(lab)] x 100%	98.23	98.41	98.74			

Remarks : Test Result is Confirmed as per MORTH Specification

VSR CIVIL INFRA PVT. LTD. BANGALORE 560 [illegible]

Consultants representative

Contractor representative

Client Representative